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AUTHOR Martinez, Paul E.
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ABSTRACT

The Home Environment Variable Questionnaire was given to guardians of 73 fifth grade students enrolled in bilingual-bicultural education programs in Espanola, New Mexico, for the purpose of identifying those home environment variables which predicted academic achievement. Grade Equivalent Scores from the Comprehensive Test of Basic Skills were used to measure student achievement. The questionnaire covered parent level of education, family size, verbal interaction (which language, Spanish or English, do family members use to speak to each other), learning materials in the home, encouragement of the child to read, parent aspirations toward education and future employment of the child, parental trust in school, home stability, and income levels. Step-wise multiple regression analysis was used to determine the relationship between home environment and academic achievement. For the total sample, the following five home environment variables were found to best predict achievement when they operated jointly: verbal interaction; total size of family; which parent handles household money; number of hours spent reading with the child in English and/or Spanish; and parental aspirations for the child. Although there were differences in the four dimensions selected for the male and female sub-samples, number of family members still at home and verbal interaction applied to both. The questionnaire used in the study and a data collection sheet are part of the document. (CM)

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"THE HOME ENVIRONMENT AND ACADEMIC ACHIEVEMENT: THERE IS A CORRELATION"

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Dr. Paul E. Martinez
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The purpose of this study was to identify those home environment variables which predicted academic achievement for fifth-graders in bilingual-bicultural education programs in one rural area of northern New Mexico. Achievement was measured by Grade Equivalent Scores from the Comprehensive Test of Basic Skills.

A sample consisted of 73 fifth-grade students, all enrolled in one of the bilingual-bicultural education programs in the Espanola, New Mexico, Public School District during the spring term 1979. Guardians of the students were given the Home Environment Variable Questionnaire (HEVQ), an instrument designed by this author specifically for this investigation. A major consideration in developing the HEVQ was that it should provide an analysis of nine general and distinct dimensions and eleven related sub-dimensions of the home environment. The following details the HEVQ:

HOME ENVIRONMENT VARIABLE QUESTIONNAIRE (HEVQ)

Guardian's Name _____

Child's Name _____

Teacher's Name _____

School _____

City _____ Date _____

CTBS _____

HEVQ

I. LEVEL OF EDUCATION

1. Circle the last year which you completed in school.

1 2 3 4 5 6 7 8 9 10 11 12

2 years of college

4 years of college

Graduate school

2. Circle the last year which your husband/wife completed in school.

1 2 3 4 5 6 7 8 9 10 11 12

2 years of college

4 years of college

Graduate school

HEVQ

II. SIZE OF FAMILY

1. How many members (including parents and children) are in your family?

_____ members

2. How many currently live at home?

_____ members

III. VERBAL INTERACTION

1. What language do you speak to your children?
 - a. only Spanish
 - b. mostly Spanish
 - c. only English
 - d. mostly English
 - e. English and Spanish equally

2. How frequently do you speak to your child?

_____ hours per week

3. What language do your children speak to you?
 - a. only Spanish
 - b. mostly Spanish
 - c. only English
 - d. mostly English
 - e. English and Spanish equally

4. What language do your children speak to their friends?
 - a. only Spanish
 - b. mostly Spanish
 - c. only English
 - d. mostly English
 - e. English and Spanish equally

5. What language do your children speak to their brothers and sisters?
 - a. only Spanish
 - b. mostly Spanish
 - c. only English
 - d. mostly English
 - e. English and Spanish equally

IV. MATERIALS FOR LEARNING IN THE HOME

1. Do you have a set of encyclopedias in your home?
a. Yes _____ b. No _____
2. Do you get any newspapers or magazines regularly?
a. Yes _____ b. No _____
3. Do you buy or have at home any types of children's books
(children's literature, educational books, puzzle books,
how-to-do-it books) for your child?
a. Yes _____ b. No _____
4. Do you have any type of educational games that your child
can use in the home? (manipulatory games included such as
bingo, monopoly, scrabble, concentration, chess, etc.)
a. Yes _____ b. No _____
5. Do you have a dictionary at home?
a. Yes _____ b. No _____
What kind is it? _____
6. Does your child have access to a dictionary?
a. Yes _____ b. No _____
How often is it used? _____
7. Do you own a television set? Record player? Radio?
a. Yes _____ a. Yes _____ a. Yes _____
b. No _____ b. No _____ b. No _____
8. Do you let your child operate any of the appliances?
a. Yes _____ b. No _____
9. What kind of school supplies are available for the child
to work with at home?

Coloring books _____	Paper _____
Crayons _____	Ruler _____
Paints _____	Scissors _____
Paste _____	Other (specify) _____

HEVQ

V. ENCOURAGEMENT OF CHILD TO READ

1. Does anyone in the home read in Spanish to your child?

a. Yes _____ b. No _____

2. Does anyone in the home read in English to your child?

a. Yes _____ b. No _____

3. How many hours a week does anyone in your family spend reading with the child?

_____ hours spent weekly reading in Spanish

_____ hours spent weekly reading in English

4. Do you encourage your child to read at home?

a. Yes _____ b. No _____

5. Have you obtained any books or any other type of reading materials for your child within the last three months?

a. Yes _____ b. No _____

If so, what? _____

HEVQ

VI. ASPIRATIONS TOWARD EDUCATION AND FUTURE EMPLOYMENT OF THE CHILD

1. What do you hope your child will gain from attending school?

2. How far do you expect your child to go in school?

- a. Finish elementary school
- b. Finish junior high school
- c. Finish high school
- d. Finish two years of college
- e. Finish four years of college
- f. Finish graduate school

3. Do you encourage your child to do well in school?

- a. Consistently
- b. Sometimes
- c. Never

4. When your child is grown up, what kinds of jobs do you expect him/her to have? (Give examples)

HEVQ

VII. PARENTAL TRUST IN SCHOOL

1. If a child begins school poorly, do you think he/she could get a bad reputation with teachers and school administrators?

a. Yes _____

b. No _____

2. Could a bad reputation which a child gets at first last all through school?

a. Yes _____

b. No _____

3. What can be done to prevent a child from getting a bad reputation in school?

4. Do you think the school is doing a good job of educating your child?

a. Yes _____

b. No _____

5. Do you feel going to school is a worthwhile experience for your child?

a. Yes _____

b. No _____

VIII. STABILITY OF THE HOME

1. Does your family attend church together?
a. Yes _____ b. No _____
2. If you attend a wedding, does the entire family go together?
a. Yes _____ b. No _____
3. Besides attending church or weddings, what types of activities does your family do together? (Give examples)

4. How long have you been married? _____ years
5. How long have you lived in this community? _____ years
6. How long have you lived in this home? _____ years
7. Does your husband/wife ever show affection toward you in front of the child? (Examples--a kiss, hug, kind word)
a. All of the time _____
b. Most of the time _____
c. Some of the time _____
d. Never _____
8. If you ever have a conflict with your husband/wife, is he/she right?
a. All of the time _____
b. Most of the time _____
c. Some of the time _____
d. Never _____
9. If you ever have a conflict with your son/daughter is he/she ever right?
a. All of the time _____
b. Most of the time _____
c. Some of the time _____
d. Never _____

HEVQ

VIII. STABILITY OF THE HOME (CONT.)

10. Who usually makes the decisions at home? _____

11. Who usually handles the money? _____

IX. INCOME LEVELS

What was your family income last year?

- a. Under \$1,000
- b. \$1,000 - \$2,999
- c. \$3,000 - \$5,999
- d. \$6,000 - \$9,999
- e. \$10,000 or more

The Home Environment Variable Questionnaire was administered in personal interviews and responses were recorded by the interviewer. Responses were marked on the following data collection sheet developed particularly for the HEVQ. Brief information on demographic variables was also obtained from the interviewee and included on the data collection sheet.

DATA COLLECTION SHEET

Guardian's Name _____

Child's Name _____

Teacher's Name _____

School _____ City _____

CTBS Score _____ Date _____

I. Level of Education

1) 1 2 3 4 5 6 7 8 9 10 11 12

2 years of college

4 years of college

Graduate School

2) 1 2 3 4 5 6 7 8 9 10 11 12

2 years of college

4 years of college

Graduate School

II. Size of Family

1) _____ members

2) _____ members

III. Verbal Interaction

1) a b c d e

2) _____ hours per week

3) a b c d e

4) a b c d e

5) a b c d e

IV. Materials for Learning in the Home

- 1) a b
- 2) a b
- 3) a b
- 4) a b
- 5) a b What kind is it? _____
- 6) a b How often is it used? _____
- 7) a b a b a b
- 8) a b
- 9) Coloring books _____ Paper _____
Crayons _____ Ruler _____
Paints _____ Scissors _____
Paste _____ Other _____

V. Encouragement of Child to Read

- 1) a b
- 2) a b
- 3) _____ hours spent reading in Spanish
_____ hours spent reading in English
- 4) a b
- 5) a b If so, what? _____

VI. Aspirations Toward Education and Future Employment of Child

- 1) _____

- 2) a b c d e
- 3) a b c
- 4) _____

VII. Parental Trust in School

1) a b

2) a b

3) _____

4) a b

5) a b

VIII. Stability of the Home

1) a b

2) a b

3) _____

4) _____ years

5) _____ years

6) _____ years

7) a b c d

8) a b c d

9) a b c d

10) _____

11) _____

IX. Income Levels

a b c d e

Step-wise multiple regression analysis was the statistical method employed to determine the relationship between home environment and academic achievement. Separate step-wise multiple regression analyses were conducted for the total sample as well as for male and female sub-samples.

For the total sample, the following five separate home environment variables were found to be the best predictors of achievement when they operated jointly.

1. "Verbal Interaction." (This was the highest individual predictor of academic success.)
2. "Total Size of Family."
3. "Which Parent Handles Money in the Household?"
4. "Number of Hours Spent Reading with the Child in Spanish and/or English."
5. "Parental Aspirations for Future Employment of the Child."

As a combination, the aforementioned variables accounted for 36 percent of the variance in academic achievement. This figure was statistically significant. Of all sub-variables examined in the study, the combination of the five discussed above proved to be the most statistically significant when operating jointly.

For the male sub-sample, four dimensions were selected in the regression process as the best combination of predictors. "Which Parent Handled the Money in the Household?" was the highest individual predictor variable for males. This was followed by "Number of Family Members Who Still Live at Home" which was closely correlated to total family size. "Verbal Interaction" once again entered the step-wise regression equation as a significant predictor of achievement.

The fourth predictive variable selected from the male sample dealt with settling conflicts with the spouse and/or son or daughter. Selection in the equation of this sub-variable offered more insight into the importance of a stable home life in predicting academic success.

The four sub-variables operating jointly accounted for 61 percent of the variance in achievement. This figure was quite statistically significant.

For the female sub-sample, four variables were also selected as the best combination of predictors of academic achievement. These were: "Verbal Interaction," "Activities that the Family Does Together," "Number of Family Members Who Still Live at Home," and "Number of Hours Spent Reading With the Child in English and/or Spanish." Only the third sub-variable, "Activities that the Family Does Together," was a new entry into the regression equation, and it also gave support to the basic premise that a stable home life will predict achievement.

All four variables operating jointly accounted for 41 percent of the variance in academic achievement and this figure was also statistically significant.